Customer No. 24498
Attorney Docket No. PF020112
Office Action Date: 12/04/2009

Remarks/Arguments

Claims 1 – 7 and 9 were pending in the application. Claims 1 and 9 are independent.

In the present response, claims 1 and 9 are amended for non-statutory reasons: to present the claims in better form for consideration. No new matter is believed to be added.

Rejection of claims 1 – 3, 6 and 9 under 35 U.S.C. 103(a) as being unpatentable over Ichikawa et al. ("Frame Transfer Protocol with Shortcut between Wireless Bridges"), hereinafter "Ichikawa," in view of Hart ("Extending the IEEE 802.1 MAC Bridge Standard to Remote Bridges") and Mahajan et al. (US Pat. 6,628,624), hereinafter "Mahajan"

Applicants submit that for at least the reasons discussed below claims 1 – 3, 6 and 9 are patentable over Ichikawa, Hart and Mahajan, either singly or in combination.

For example, claim 1, in part, requires:

> *"electing a parent portal based on the bridge portal with the greatest number of such wireless ports."*

In the Office Action, page 3, it is conceded by the Office that Ichikawa does not disclose a root (parent) election procedure that is based on the number of ports of a bridge.

Hart indicates that the bridge having the most ports is elected as the root. However, Hart does not indicate that the root is elected based on the bridge having the most wireless ports.

In the Office Action, pages 6 – 7, Response to Arguments section, the Office alleged that since the claim uses an open-end "comprising" transitional phrase, the claim scope does not exclude the wired ports from being taken into account. Applicants respectfully traverse the interpretation of the use of the "comprising" transitional phrases. Applicants' claim 1, recites:

"A method for parent election among bridge portals in a transparent wireless bridge, said transparent wireless bridge comprising at least two bridge portals, said method comprising:

determining for each bridge portal the number of wireless ports adapted to directly connect other wireless devices;

electing a parent portal based on the bridge portal with the greatest number of such wireless ports, and

directly connecting each other bridge portals to a wireless port of the elected parent portal."

The "comprising" phrase in question (underlined above), refers to the following elements being included in the claimed method:

determining for each bridge portal the number of wireless ports adapted to directly connect other wireless devices;

electing a parent portal based on the bridge portal with the greatest number of such wireless ports, and

directly connecting each other bridge portals to a wireless port of the elected parent portal.

Clearly, the claimed element: "*electing a parent portal based on the bridge portal with the greatest number of such wireless ports*" does not contain the "comprising" phrase. Thus, the limitation of "electing a parent portal ..." is not an open-ended element. The claimed invention clearly requires the election of the parent portal be based on the greatest number of wireless ports. Applicants submit that it is unreasonable to infer that "*electing a parent portal based on the bridge portal with the greatest number of such wireless ports*" would include the wired ports in determining the greatest number of wireless ports.

Since there are wired ports and wireless ports, combining Ishikawa to Hart would lead a skilled person to elect the portal having the most ports (wired and wireless) as the root portal. Applicant submits that as there are both wired and wireless ports in the combined teaching of Ishikawa and Hart, the reconstruction of the election of a parent portal based on the greatest number of wireless ports is clearly based on knowledge gleaned only from the Applicants' disclosure. Therefore, Applicants submit that without specific teaching of electing the parent

portal based on the number of wireless ports, a skilled person would not combine Ishikawa and Hart to arrive at the claimed invention without the benefit of the impermissible hindsight.

In the Office Action, page 3, the Office alleged that from Fig. 6 of Ichikawa, any difference in the number of ports among the APs is based on the number of wireless ports. However, even if AP-5 of figure 6 has a different number of ports, most APs (e.g. AP-1 to AP-4) of Ichikawa have the same number of ports. Therefore, there is no reason to rely on the number of wireless ports to prioritize the APs of Ichikawa, because that process would not help to differentiate between AP-1 to AP-4 of Ishikawa. Thus, based on the combined teaching of Ichikawa and Hart, a skilled person would not elect the root portal based on the greatest number of wireless ports, because in Ichikawa, AP-1 to AP-4 all have the same number of wireless ports.

In the Office Action, page 7, the Office stated that in Hart, if there are an equal number of ports, then the bridge with the smallest station address value is chosen. However, Applicant submits that choosing the bridge with the smallest station address value is not equivalent to choosing the bridge with the greatest number of wireless ports, because a station address is not directly tied to the number of wireless ports. The claims clearly requires the election of a parent portal based on the greatest number of wireless ports. Therefore, the combined teaching of Ishikawa and Hart does not in any way teach or suggest electing a parent portal based on the greatest number of wireless ports.

Moreover, Applicants submit that the root portal of the combination of Ichikawa and Hart would be a root according to the 802.1D. This would conduct to a spanning tree topology such as indicated in Fig. 1 of Hart with wireless APs acting as bridges. However, this would not be equivalent to the topology of the claimed invention where the other bridge portals are connected to the ports of the elected parent portal.

The Office also cited Mahajan, which discloses that administratively disabled ports are excluded from the spanning tree. However, Applicants submit that Mahajan fails to cure the deficiencies found in Ichikawa and Hart as applied to claim 1 as discussed above, because Mahajan only discloses disabled ports in the

spanning tree, it does not disclose the election of parent portal based on the greatest number of wireless ports.

In view of at least the foregoing reasons, Applicants submit that claim 1 is patentable over Ichikawa, Hart and Mahajan, either singly or in combination.

Similarly, independent claim 9, in part, requires:

> *"said microprocessor means being adapted to participate in a parent portal election process among bridge portals based on the greatest number of wireless ports on the wireless interfaces of portal devices of the wireless bridge."*

Similar to the arguments set forth above for claim 1, Applicants submit that nothing in Ichikawa, Hart and Mahajan discloses the electing the parent portal based on the greatest number of wireless ports. Therefore, for at least the above reasons, claim 9 is patentable over Ichikawa, Hart and Mahajan.

Claims 2, 3 and 6 depend from claim 1 and inherit all the features of claim 1. Thus, claims 2, 3 and 6 are patentable for at least the reason that they depend from claim 1, with each claim containing further distinguishing features not found in the cited combination of references.

Withdrawal of the rejection of claims 1 – 3, 6 and 9 under 35 U.S.C. 103(a) is respectfully requested.

Rejection of claim 4 under 35 U.S.C. 103(a) as being unpatentable over Ichikawa in view of Hart and Mahajan, and further in view of IEEE Standard 802.1w

Rejection of claim 5 under 35 U.S.C. 103(a) as being unpatentable over Ichikawa in view of Hart, Mahajan and IEEE Standard 802.1w, and further in view of Moriya (US Pg Pub 2002/0027887)

Rejection of claim 7 under 35 U.S.C. 103(a) as being unpatentable over Ichikawa in view of Hart and Mahajan, and further in view of Meier (WO 95/12942)

Applicants submit that none of the secondary references cited above can cure the deficiencies pointed out above with respect to the combination of

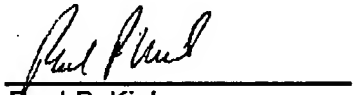
Ichikawa, Hart and Mahajan as applied to claim 1. Claims 4, 5 and 7 depend from claim 1 and inherit all the features of claim 1. Applicants essentially repeat the above arguments from claim 1 and apply them to each dependent claim. Thus, claims 4, 5 and 7 are patentable for at least the reason that they depend from claim 1, with each claim containing further distinguishing features not found in the combination of references. Withdrawal of the rejection of claims 4, 5 and 7 under 35 U.S.C. 103(a) is respectfully requested.

Conclusion

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the Applicants' attorney at (609) 734-6815, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,

Sebastien Perrot, et al.



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